Drunken Carnival of Hate:
The Impact of a Minority Group's Growth on Intergroup Conflict

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Introduction

Why do humans push themselves into conflict despite apparent costs?
- Economists explain conflict with strategic decision making and persistent economic conditions, such as income inequality.
- Social psychologists link it with prosociality driven by categorization and identification.

How does a minority group's growth impact intergroup conflict onset?
- I hypothesize that a minority group's growth increases the probability of intergroup conflict onset.
- I focus on the 'emotional' aspect of intergroup conflict, which is largely understudied.

Key Words: conflict, power, inequality, game theory, ABM, hatred

Status Loss Aversion

- **I theorize a majority group experiences Status Loss Aversion, of which magnitude is determined by cultural tightness, polarization, and intrinsic social preference, when they see a minority group's growth**.
- The following historical and social accounts provide great intuitive patterns:
  ‣ Ethnic violence against African-Americans
  ‣ Backlash against feminism in 2020s
  ‣ Hindu-Muslim conflict
  ‣ State-Sponsored Mass murder in 20th C.
- I incorporate different theories across disciplines:

Economics
- Prospect Theory
- Social Preference
- Inequity Aversion

Psychology
- Cultural Evolutionary Theory
- System Justification Theory
- Tightness-Looseness Theory

Philosophy
- The Frankfurt School's Otherization

Status Loss Aversion

- **Status Loss Aversion**: **the preference for the status quo in the existing power structure.**
- In Figure 1, the more a majority group otherizes a minority group, the angle between the perceived utility line and the 45-degree line (θ) increases as a majority group's expected utility decreases.
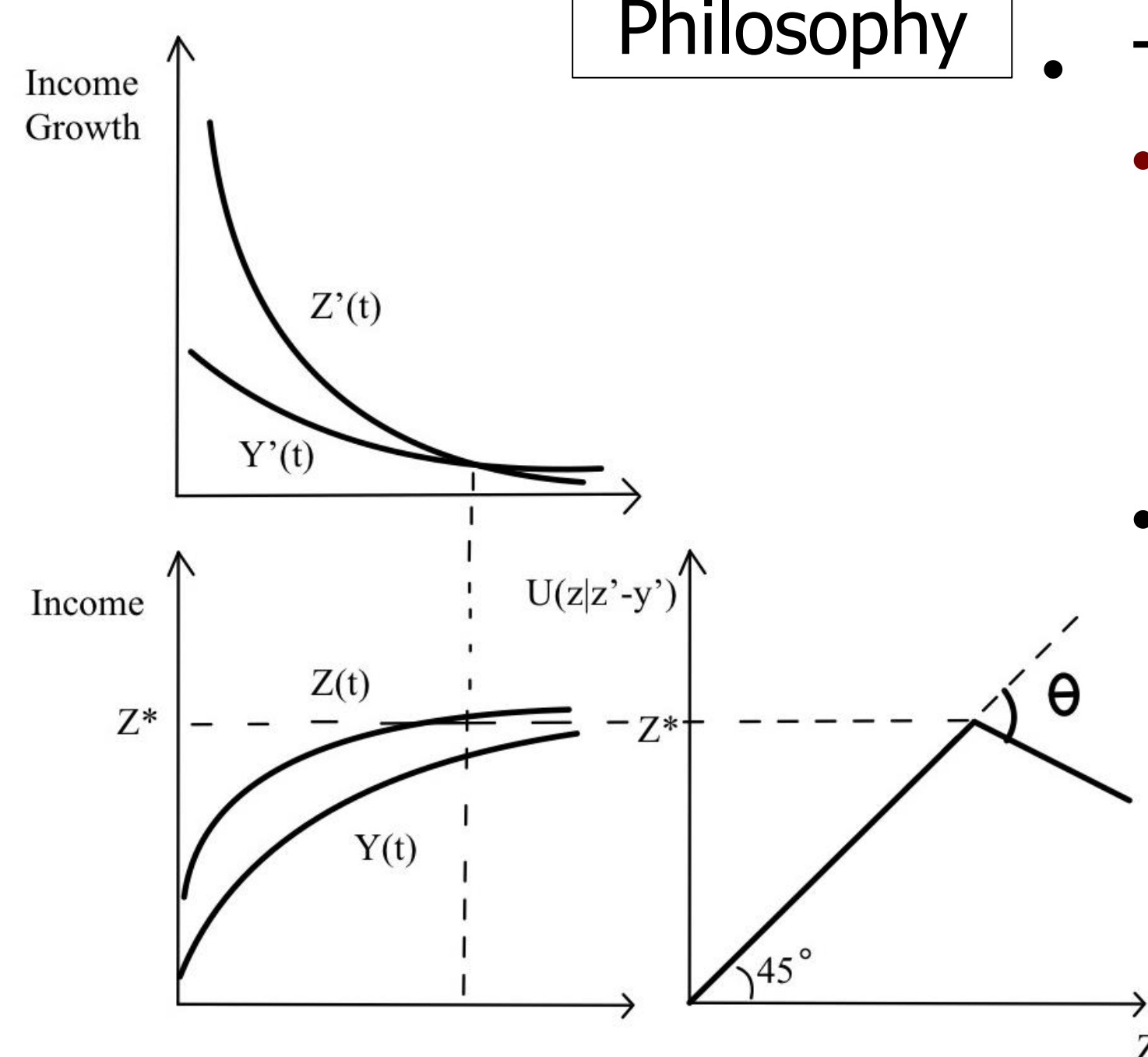

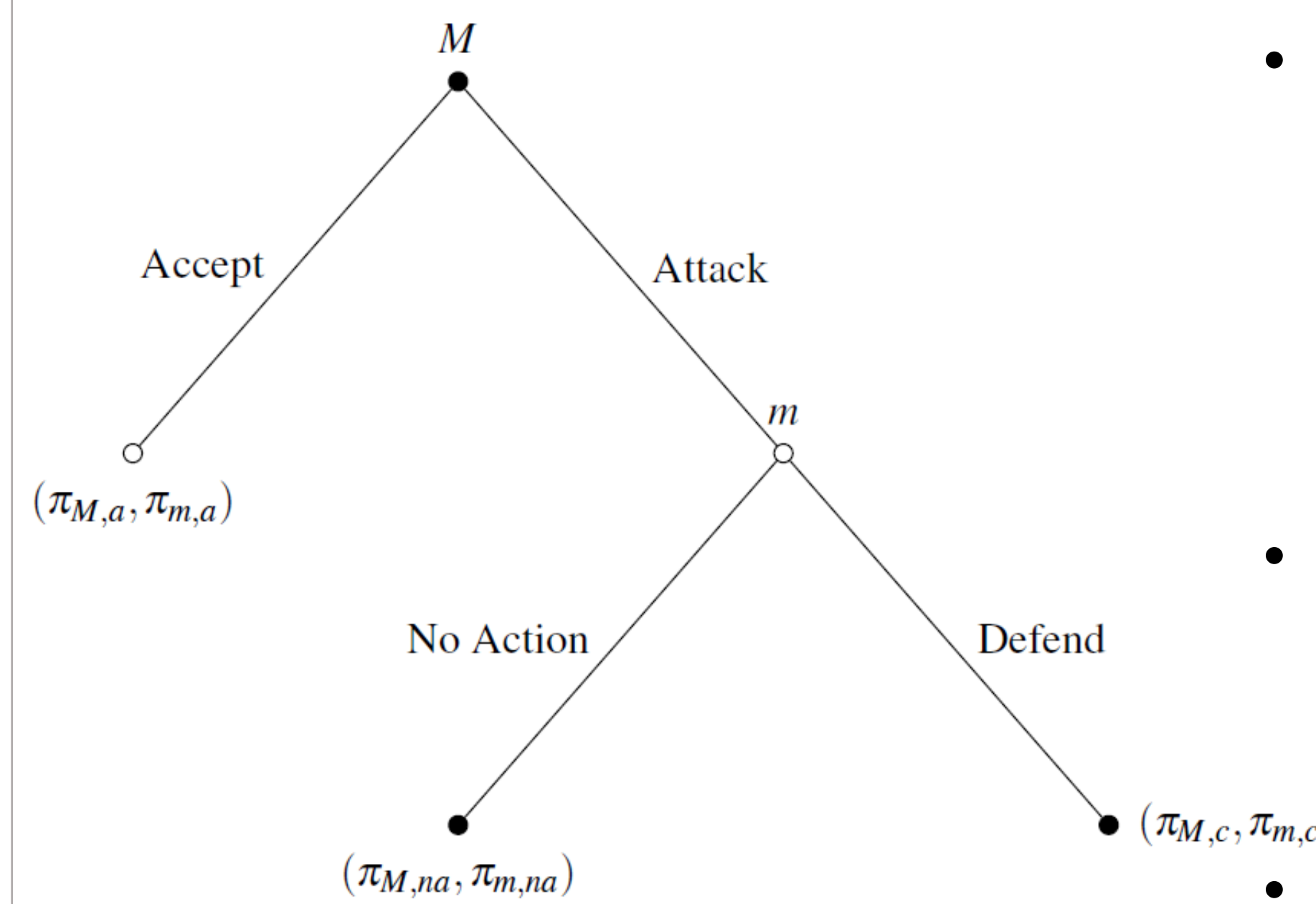Figure 1. Status Loss Aversion with Income Growth

The Conflict Onset Model

Figure 2. An Extensive-form Game of Intergroup Conflict between a Majority Group and a Minority Group (Conflict Onset Model)

- The conflict onset model uses an extensive-form game to map out each group's best strategy based on their expected utility.
- A majority group decides to attack a minority group when $\pi_{M,a} > \pi_{M,na} + \pi_{M,c}$.
- A minority group decides to defend themselves when $\pi_{m,na} > \pi_{m,c}$.
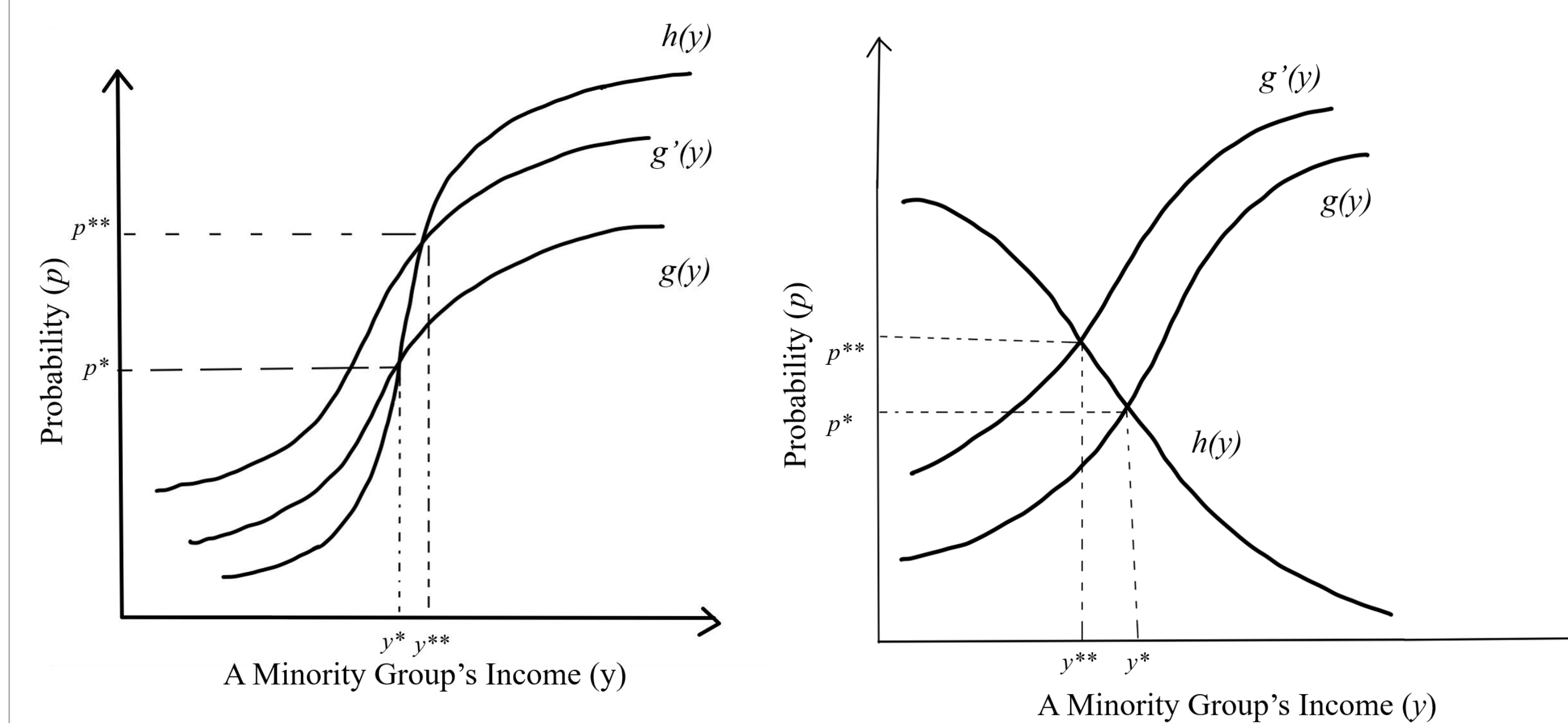

Figure 3. Equilibrium in the Space of a Minority Group's Income and the Probability of Conflict Onset

- In Figure 3, the left and right graphs rely on the different levels of parameters. Both cases show that the probability of conflict onset increases from (p*) to (p**) when a minority group's growth shifts a majority group's attack function g(y) up to g'(y) through Status Loss Aversion.

Nighttime Light Emission Data

- I use nighttime light emission data to measure a minority group's income growth.
- Nighttime luminosity dataset gauges ethnic groups' economic development by integrating night light emission with spatial data from each ethnic group's central residential areas in GeoEPR data.
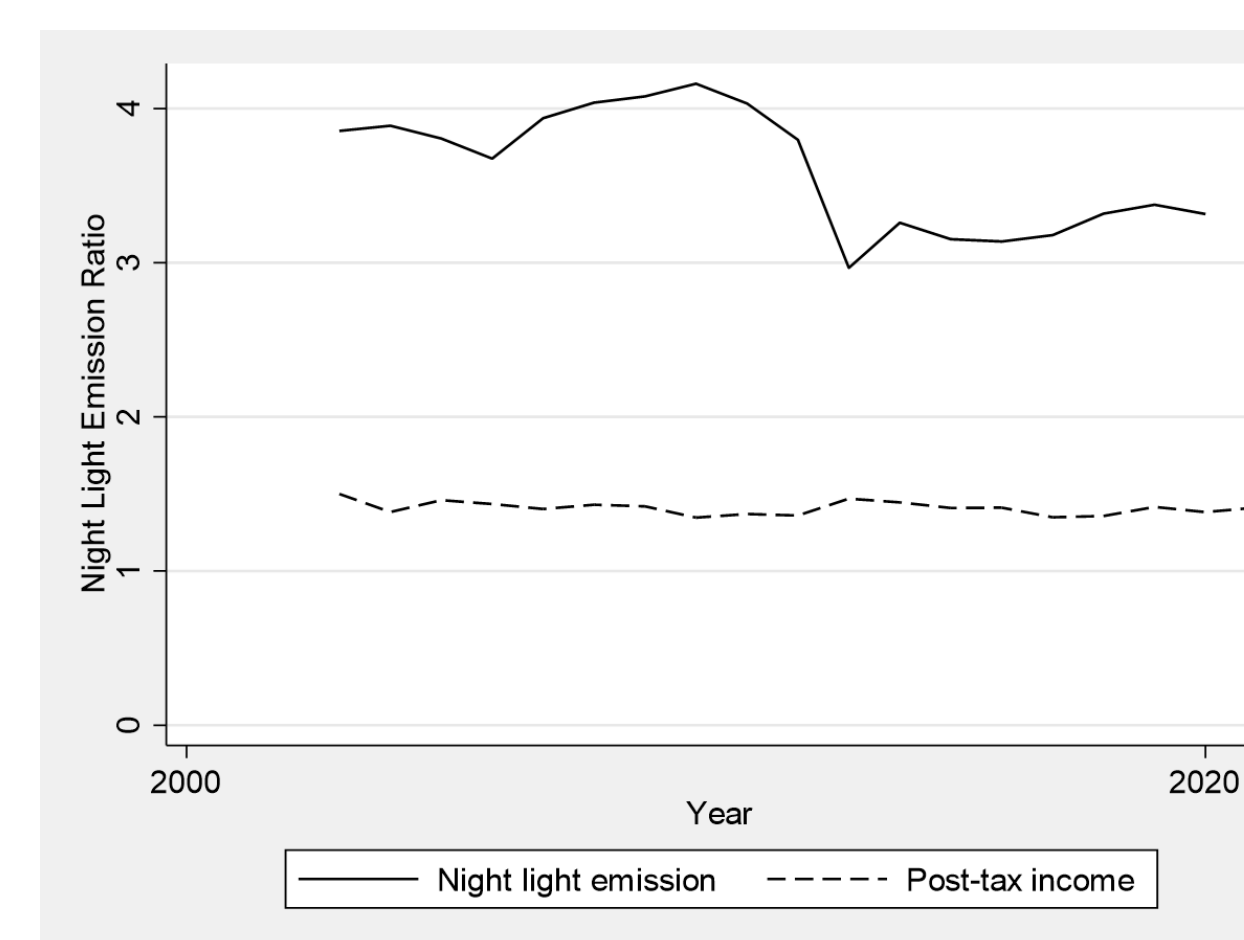

Figure 4. The Comparison between Nightlight and Post-Tax Income

- I find that nighttime light emission data is statistically significant in predicting income growth using US income data by ethnicity.

Methodology

- I simulate an agent-based model by modifying the SIRS model.
- In Figure 5, each vertex represents an agent, colors mark different ethnicities, and each node denotes the interaction between agents.

Figure 5. The Agent-Based Model Using the SIRS Model

- I construct a global panel dataset from 1992 to 2019 using the Research Front End, Ethnic Power Relations 3.01, and Penn World Table 10.01 datasets.
- I estimate fixed-effects Poisson and logistic regressions of the probability of conflict onset with a minority group's growth and control variables (fractionalization, real GDP, labor share, etc.).
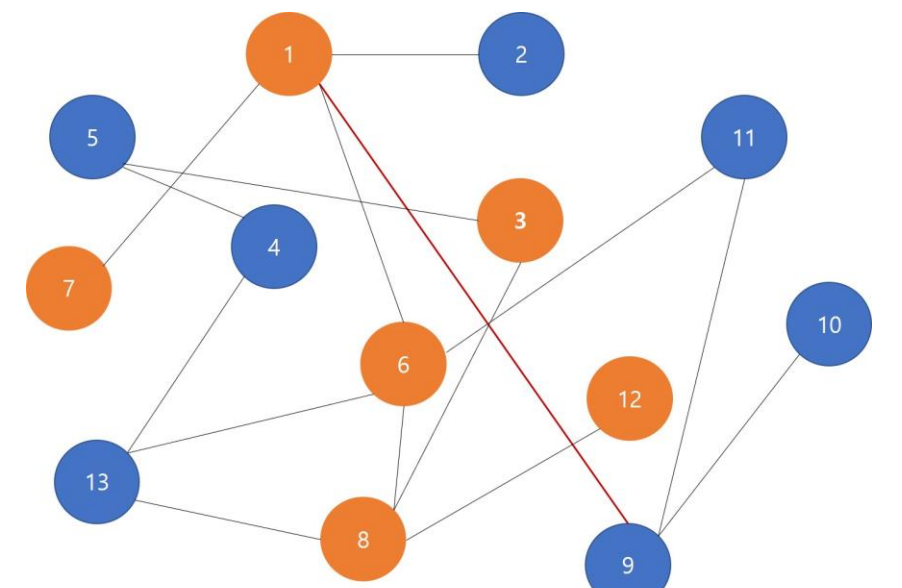
Results & Discussion

- In Figure 6, low income growth and high income growth cases reach equilibrium at around 56 and 67, respectively, at the given parameters as the time approaches 50.
- All the estimated coefficients of Minority Growth are statistically significant at the 10% level across the various specification.

Figure 6. ABM Outcome of the Number of Conflicts over Time

- A 1 percent growth of a minority group's income increases the probability of conflict onset by 0.000601 percentage points, *ceteris paribus*.
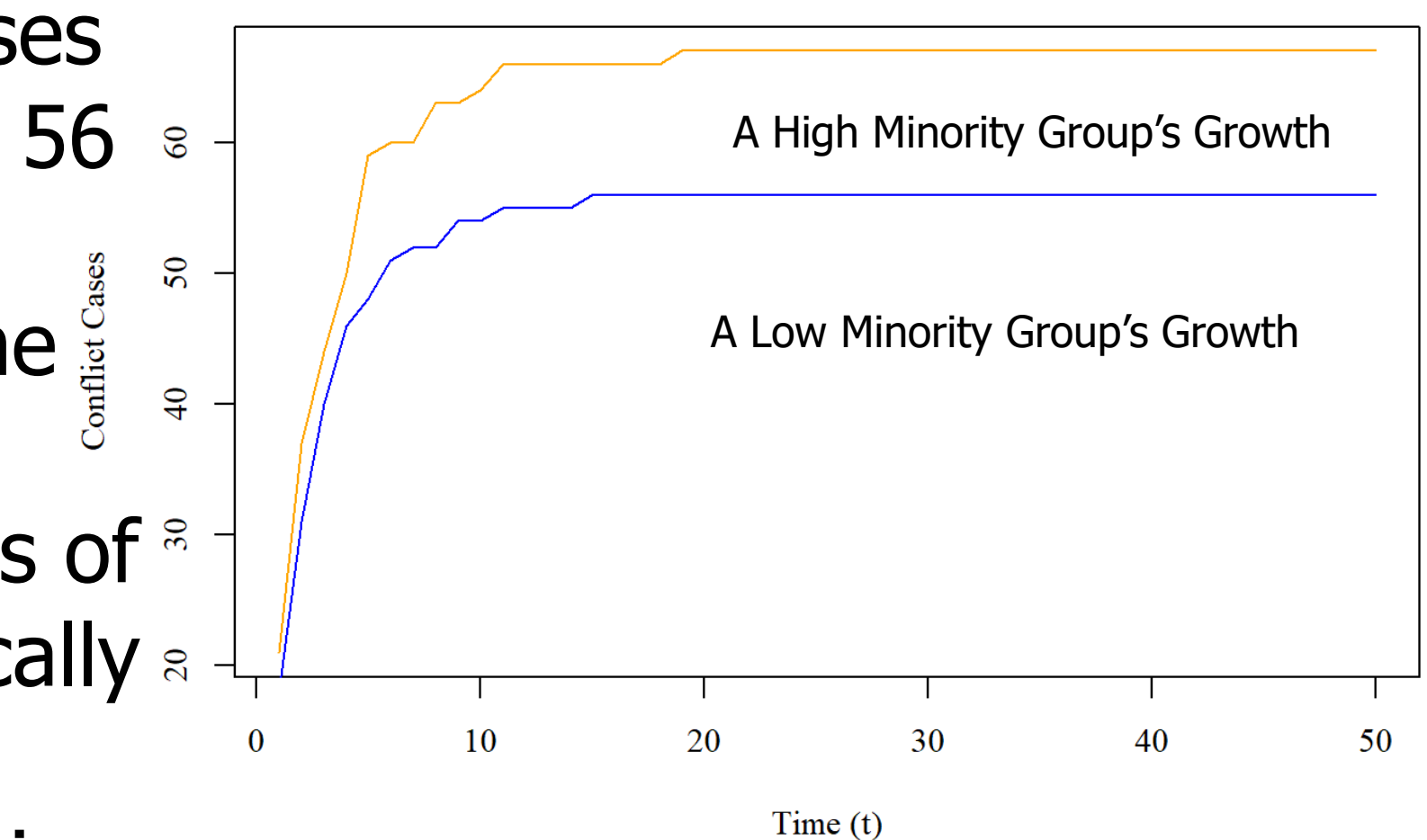- **The Poisson and logistic regression estimations suggest that a minority group's growth increases the probability of conflict onset, as aligned with my theory.**
- This project contributes to illuminating conflict through the lens of the feeling of loss or hate and provides an alternative approach to existing analyses of conflict.
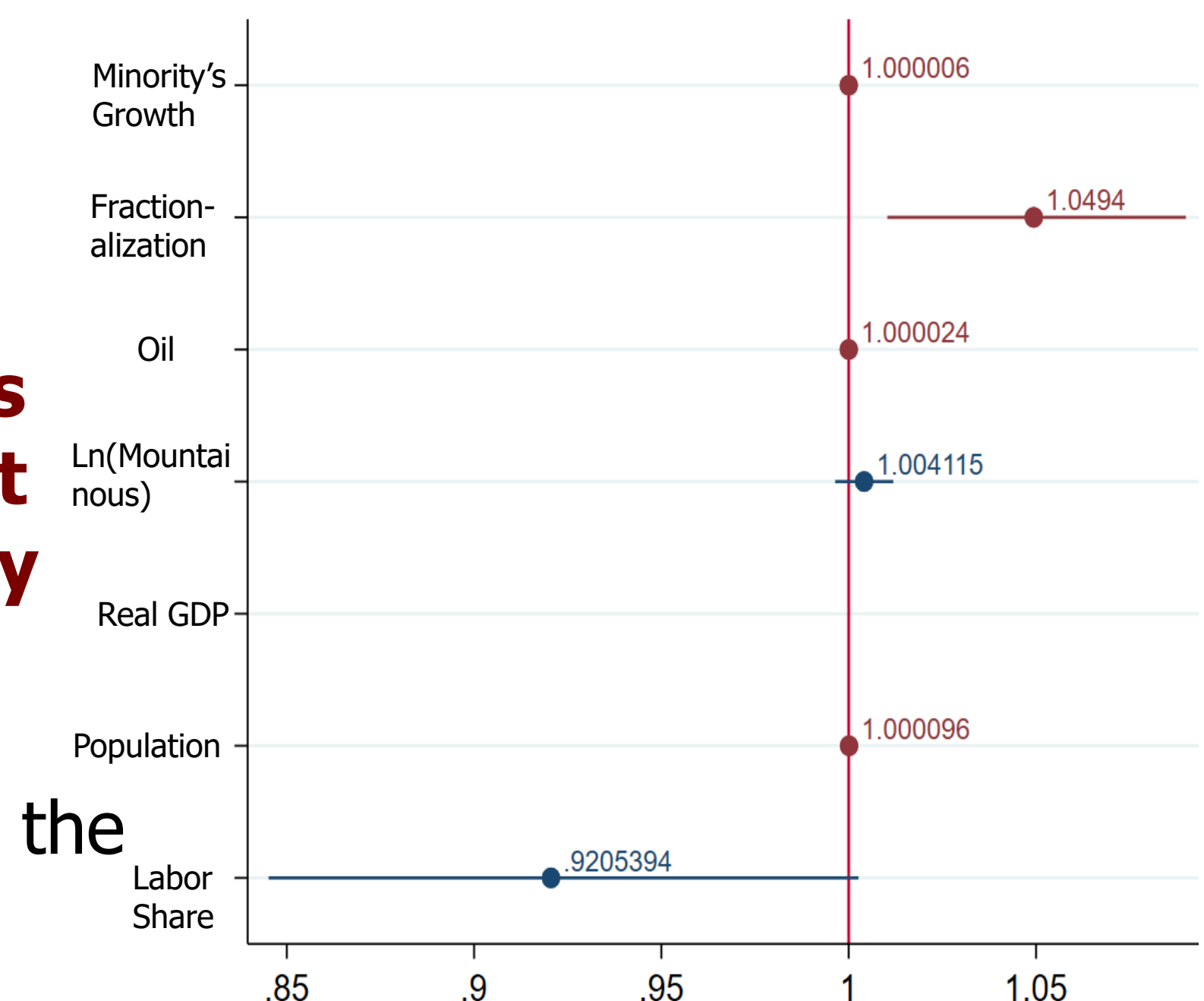

Figure 7. A Coefficient Plot of the Poisson Regression Estimates

Acknowledgment